

KUALA LUMPUR, MALAYSIA

# SEG/SPE INTEGRATED RESERVOIR CHARACTERIZATION, SURVEILLANCE AND MANAGEMENT: ADVANCES AND CHALLENGES WORKSHOP.

20 - 21 JUNE 2023

SEG/SPE WORKSHOP

# TECHNICAL PROGRAM



## COMMITTEE MEMBERS

### COMMITTEE CO-CHAIR

Sandeep Kumar Chandola, PETRONAS  
Lay Hong Khaw, SHELL

### WORKSHOP ADVISOR

Dr. Rahim Masoudi, PETRONAS

### COMMITTEE MEMBERS

Alessandro Mannini, Santos  
Adzlin Binti Arifen, Iraya Energies  
Amin Shahbazi, RiseHill Data Analysis  
Dries Gisolf, Delft Inversion  
Ivan Praja, Rockflow Dynamics Sdn Bhd  
Mohd Akram Omar, Rockflow Dynamics Sdn Bhd  
Mohd Amri Mohd Diah, PETRONAS  
Fergus Sinclair Smith, Ikon Science  
Murali Raghunathan, PETRONAS  
Prat Boonyasatphan, PTTEP  
Ras Hadi Ramlan, ExxonMobil  
Richard King, Sarawak Shell  
Shivaji Maitra, CGG  
Shogo Masaya, INPEX  
Suyang Chen, SLB  
Ting Ting Chang, Brunei Shell  
Vincent Ganivet, Shearwater Geoservices

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## Tuesday, 20th June 2023

### Day 1

(Venue - Junior Ballroom 1, 2nd Floor - InterContinental Hotel)

8:00 - 9:00  
9:00 - 9:05  
9:05 - 9:15

**Onsite Registration**  
**Hotel Safety Briefing**  
**Welcome by the Technical Committee Co -Chairs:** Sandeep Kumar Chandola, (PETRONAS) & Lay Hong Khaw, (Shell)

9:15 - 9:45  
9:45 - 9:55  
9:55 - 10:15

**OPENING ADDRESS**  
**Group Photo**  
**Coffee Break- 20 min**

Session 1  
10:15 - 11:15

**ACQUISITION PROCESSING**  
Session Chairs: Amin Shahbazi, (Risehill Energy) & Ting Ting Chang, (Shell)  
  
**Sharing Insights on Utilizing Hybrid 4D Solution in An Active Field in Brunei**  
Azim Salleh (Brunei Shell)  
**Successful Application of 4D FWI to Towed -Streamer Data Offshore Australia**  
Robert To (CGG)  
**Time-Lapse Dual-Source Hexa-Source OBS Imaging for the Edvard Grieg Field**  
Richard Ford (SLB)

11:15 - 11:45  
11:45 - 13:15

**Moderated Discussion - 30 min**  
**Lunch**

Session 2  
13:15 - 14:15

**CASE STUDIES/RESERVOIR MONITORING - PART 1**  
Session Chairs: Murali Raghunathan, (PETRONAS) & Lay Hong Khaw, (Shell)  
  
**Integrating 4D Seismic into Production Optimization and Waterflood Management in BSP's Largest Oil Offshore Field**  
DK Nurhayati PD Daud (Brunei Shell)  
**Permanently Distributed Fiber Optic Sensing Applications for Oil and Gas and CCUS**  
Peter Smith (Silixa)  
**Maximizing the Value of Exploration Seismic for Carbonate 4D in Brown Field and Beyond**  
Ong Hock Kim (Shell)

14:15 - 14:45  
14:45 - 15:05

**Moderated Discussion - 30 min**  
**Coffee Break- 20 min**

Session 3  
15:05 - 16:05

**CASE STUDIES/RESERVOIR MONITORING - PART 2**  
Session Chairs: Mohd Amri Mohd Diah, (PETRONAS) & Akram Omar (RockFlow Dynamics)  
  
**Understanding Reservoir Heterogeneity and Fluid Movement through the Lens of 4D Seismic**  
Haiqal Hazreeq (Shell)  
**Analysis to Action: Navigating the Challenges of Reservoir Surveillance and Management using 4D Seismic Solutions**  
Sanjeev Rajput (PETRONAS)  
**Advancements in 4D Seismic Technologies: Embracing Hybrid Workflows, Automation, and AI Integration for Cost-Effective CCS Monitoring**  
Mehdi Paydayesh (SLB)  
**Moderated Discussion - 30 min**

Session 4  
16:35 - 17:45

**CASE STUDIES/CCS**  
Session Chairs: Shogo Masaya, (INPEX)  
  
**Predicting 4D Seismic Changes for Effective Monitoring Planning of CO2 Injection in Saline Aquifer: A modelling approach**  
Ravi Kant Pathak (Geocoin Global Private Limited)  
**Case Studies of 4D Seismic Feasibility Analysis Integrating Rock Physics and Reservoir Models for Greenfield Development and CCS**  
Stallone Teng & Nasim Ralim (PETRONAS)  
**Integrated Static-Dynamic Uncertainty Analysis for CO2 Sequestration Management in a Deep Saline Aquifer**  
Edo Pratama (Rock Flow Dynamics)

17:45 - 18:15  
18:15 - 19:50

**Moderated Discussion - 30 min**  
**Post Event Networking Session**

## Wednesday, 21st June 2023

### Day 2

(Venue - Junior Ballroom 1, 2nd Floor - InterContinental Hotel)

Session 5  
9:00 - 10:00  
10:00 - 10:20

**PANEL SESSION**  
Details to be shared shortly  
**PANEL SPEAKERS**  
Details to be shared shortly  
**Coffee Break- 20 min**

Session 6  
10:20 - 11:40

**PRODUCTION/RESERVOIR MANAGEMENT**  
Session Chairs: Ras Hadi Ramlan, (ExxonMobil)  
  
**Application of CRM Methodology in Reservoir Characterization and Waterflood Management: Multiple Case Studies in the Malay Basin Fields**  
Yuhanis Zainudain (Beicip Franlab Asia)  
**Tapis: Tales from an Offshore EOR-WAG Development**  
Sylvia Kueh (ExxonMobil)  
**End-to-End workflow for Reservoir Surveillance: Time & Cost-effective Approach**  
Pierre Bettinelli (SLB)

11:40 - 12:10  
12:10 - 13:40

**Moderated Discussion - 30 min**  
**Lunch**

Session 7  
13:40 - 14:40

**INVERSION/INTREPRETATION PART 1**  
Session Chairs: Adzlin Binti Arifen, (Iraya Energies) & Fergus Sinclair-Smith (IkonScience)  
**Application of Pulse Test Pressure Decomposition Methodology in Reservoir Characterization and Interwell Connectivity Analysis**  
Alexander Kolupaev (Beicip Franlab Asia)  
**Managing Reservoirs with 4D Seismic**  
Bill Shae (Sharp Reflections)  
**Unlocking the Power of your Unstructured Seismic Data Using Machine Learning Data Analytics**  
Yang Fairuz (Iraya Energies)  
**Uncertainty Estimation in 3D and 4D Wave-Equation-Based AVO Inversion**  
Dries Gisolf (Delft - Inversion)

14:40 - 15:00  
15:00 - 15:20

**Moderated Discussion - 30 min**  
**Lunch**

Session 8  
15:20 - 16:20

**INVERSION/INTERPRETATION - PART 2**  
Session Chairs: Dries Gisolf, (Delft-Inversion) & Prat Boonyasatphan (PTTEP)  
**Learnings from a 4D FWI Case Study in Offshore-Nigeria to Understand Time-lapse Reservoir Changes – Opportunities and Challenges**  
Gaurav Dutta (SLB)  
**4D Seismic Inversion for Production Facies**  
Fergus Sinclair-Smith (IkonScience)  
**Subsurface Seismic Velocity Monitoring Using Seismic Ambient Noise**  
Peng Guo (CSIRO)

16:00 - 16:20  
16:00 - 16:35

**Moderated Discussion - 30 min**  
**Closing Remarks by the Committee Co-Chairs**